

Appl. No.: 10/618,499  
Amtd. dated June 10, 2005  
Reply to Office Action of May 12, 2005

**II. Remarks In Response to the Office Action**

**A. General Remarks**

Claims 1-15, 17-34, 37-39, and 41 are pending in the application.

**B. Claim Rejections – 35 USC § 103**

In paragraphs 5-6 of the Office Action, claims 1-15, 17-34, 37-39, and 41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Diehr in view of U.S. Pat. 6,458,238 to Mente et al. ("Mente").

Applicants respectfully traverse the contention that Diehr in view of Mente renders claims 1-15, 17-34, 37-39, and 41 obvious in so far as the combination of Diehr and Mente does not disclose the limitations of independent claim 41, as amended.

Independent claim 41, as amended, recites that "the substrate comprises a moisture content that is about 0.1 to *less than 2%* by weight after the substrate is dried and before the substrate is impregnated with the polyisocyanate material."

In Example 9, Diehr discloses that "[b]irch veneers with a moisture content of 7 percent ... are steeped...in a mixture of ... diphenylmethane diisocyanate, ... catalyst ... and ... dimethylformamide." Diehr at col. 7:12-16. In Example 10, Diehr also discloses that "[b]irch veneers ... with a moisture content of 7 percent ... are steeped...in a mixture of ... diphenylmethane diisocyanate and ... dimethylformamide." Diehr at col. 7:28-31.

Mente discloses forming a "resinated lignocellulosic mixture ... by combining the binder resin with lignocellulosic particles having a moisture content of from 2 to 15 weight percent." Mente at Abstract; *See also* col. 2:50-53. Furthermore, Mente discloses that "[i]t is important that the lignocellulosic particles have a moisture content of from 2 to 15 weight percent. In a further

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preferred embodiment the water content is from 3 to 12 weight percent, and most preferably from 4 to 10 weight percent." Mente at col. 4:34-36.

Therefore, the combination of Diehr and Mente fails to disclose, either alone or in combination, a substrate having "a moisture content that is about 0.1 to less than 2% by weight," as recited in amended claim 41. Furthermore, the combination of Diehr and Mente fails to disclose, either alone or in combination, that a substrate has such a moisture content "after the substrate is dried and before the substrate is impregnated with the polyisocyanate material," as recited in claim 41. Accordingly, the combination of Diehr and Mente cannot render amended claim 41 obvious because Diehr and Mente do not disclose all of the limitations of amended claim 41.

Moreover, there is no motivation in Diehr and Mente to extend the moisture content disclosed in these references to encompass a moisture content about 0.1 to less than 2% by weight, as required in claim 41. As the present specification states at Paragraph [0015], "[o]rdinarily, stock lignocellulosic substrates have a moisture content of about 3-8% by weight." Thus, the moisture content disclosed in Diehr (*i.e.*, 7%) falls within this ordinary range, and Diehr fails to disclose other moisture contents below this range and instead discloses moisture contents of 10% (col. 5:50, col. 6:1 & 65); 12% (col. 6:32); 15% (col. 5:35); and 25% (col. 5:64). In addition, the moisture content disclosed in Mente (*i.e.*, 2 to 15%) encompasses the ordinary range of 3-8% by weight stated in the present specification. In fact, Mente teaches away from the present invention because Mente discloses that moisture contents below 2% by weight are undesirable for the formation of Mente's molded article. In particular, Mente discloses:

It is important that the lignocellulosic particles have a moisture content of from 2 to 15 weight percent. In a further preferred embodiment the water content is from 3 to 12 weight percent, and most preferably from 4 to 10 weight

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percent. The water is utilized during the curing of the binder resin. *If the water content is outside of this range the binder resin is not as efficient at forming the molded article.*  
[(emphasis added) Mente at col. 4:33-41]

Consequently, there is no motivation in Diehr and Mente to extend the moisture content disclosed in these references to encompass limits of the range of moisture content required in claim 41.

Even if it were appropriate to combine Diehr in view of Mente, which Applicants do not concede, the combination of Diehr in view of Mente does not render claim 41 obvious for at least these reasons. Accordingly, Applicants believe claim 41 and those claims depending therefrom are in proper form for allowance and respectfully request allowance of all pending claims in the next paper from the Office.

#### G. Fees

No fees are believed due. However, the undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application. Moreover, should any fees be due for any reason, the undersigned representative authorizes the Commissioner to charge any additional fees that may be required, or credit any overpayment, to Deposit Account No. 501922, referencing order no. 124-0002US-D.

To facilitate the resolution of any issues or questions presented by this paper, Applicants respectfully request that the Examiner directly contact the undersigned representative by phone to further the discussion, reconsideration, and allowance of the claims.

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Respectfully submitted,

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